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ABSTRACT

Student teacher congruency and its relationship to reading achievement in grades four through six are explored. Two questions were posed. First, do teachers see their students in the same way that the students see themselves? Second, what relationship does this congruency have to reading achievement? One hundred thirty-eight students in fourth, fifth, and sixth grades were given the Iowa Test of Basic Skills. Based on the score of this test, good and poor reading groups were defined as the upper and lower 27 percent of the group tested. These students rated themselves from one to ten on 21 traits on a rating scale. Their teachers rated them on the same scale. Analysis of the data yielded no significant results. Comparisons of the answers to the individual questions obtained by comparing the groups to each other indicated that the good readers were more congruent with their teachers than the poor readers on most questions, and that the good readers' and poor readers' self-perceptions didn't differ as widely as their teachers' perceptions of them. (Author/WR)

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TEACHER-STUDENT CONGRUENCY AND ITS RELATIONSHIP TO READING ACHIEVEMENT IN GRADES FOUR THROUGH SIX

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A THESIS

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OF THE GRADUATE SCHOOL OF EDUCATION

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ABSTRACT

This study attempts to explore the area of student-teacher congruency and its relationship to reading achievement in grades four through six. Two questions were posed. First, do teachers see their students in the same way that the students see themselves? Second, if so (or if not), what relationship does this congruency (or lack of it) have to reading achievement? Other relationships which are considered are those between good readers' self-perceptions and poor readers' self-perceptions and between teachers' perceptions of good and poor readers.

Since there is no literature bearing directly on this topic, the literature in related areas of personality and reading achievement, self-concept and reading achievement, and the teacher-student relationship and reading achievement was reviewed.

The sample consisted of 138 students in fourth, fifth, and sixth grades. These students took the Iowa Test of Basic Skills (1956). On the basis of the total reading score of this test, good and poor reading groups were defined as the upper and lower 27% of the group tested. These students rated themselves from 1 to 10 on 21 traits on a rating scale adapted by the investigator from the Child Personality Scale by S. M. Amatora (1951). Their teachers were asked to rate them on the same scale.

Various statistical analyses were performed; first, on the rating scales of the individual students and their teachers and, second, on the individual questions on the scale for four groups--the good readers' self-ratings, the teachers' ratings of the good readers, the poor readers' self-ratings, and the teachers' ratings of the poor readers. The first analysis yielded no significant results. Comparisons of the answers to the individual questions obtained by comparing the groups to each other indicated that the good readers were more congruent with their teachers than the poor readers on most questions, and that the good readers' and poor readers' self-perceptions did not differ nearly as widely as their teachers' perceptions of them.

Speculations were made concerning the nature of these relationships, but no conclusions were drawn. No causal relationships can be inferred from the available data and the results of this study should be conservatively interpreted.

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290:540	Principles and Theories of Learning	Dr. Gillooly
Fall 1969		
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299:566	Seminar in Reading Research and Supervision	Dr. Kling
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CHAPTER I

INTRODUCTION

Statement of the Problem

This study addresses itself to two major questions. Do teachers see their students in the same way that the students see themselves? If so (or if not), what relationship does this congruency (or lack of it) have to reading achievement? Other relationships which will be considered are those between students' perceptions of themselves and reading achievement and between teachers' perceptions of their students and reading achievement.

Importance of the Problem

The relationship of personality to reading ability has intrigued researchers for many years. Gates (1941) estimated that 75% of all serious reading disability cases show signs of maladjustment. Other writers feel that this estimate is too low and that a more accurate figure would be close to 100% (Harris, 1961). However, despite the general agreement that personality and reading achievement are related and despite the vast amount of research in this area, the exact nature of the relationship has remained elusive.

Another factor which may be related to reading achievement but has been relatively neglected by researchers in the reading field is the teacher-student relationship. After citing the results of a study done by Zohary (1955) in which mothers' attitudes towards their daughters were compared with the girls' attitudes about themselves for groups of fast and slow readers, Holmes (1961) concluded that "discrepancies between parental attitudes about their children and children's self-attitudes may be more important for school learning than the child's attitudes about himself [p. 117]." The writer proposes to substitute "teachers'" for "parental" in this statement.

Most personality theories would predict that the teacher is an important part of the learning situation (Hall & Lindzey, 1957). Psychoanalytically oriented investigators have observed classroom behavior and concluded that teacher-pupil interaction is emotionally charged rather than neutral (Tyler, 1967). Others have suggested that the teacher-pupil relationship has many similarities to the therapist-patient relationship (Lewis, Lovell, & Jessee, 1965). Learning theorists would consider the teacher a powerful reinforcing agent (Hall & Lindzey, 1957). Though the reasons may differ, both self and socially oriented theories agree on the teacher's important role in learning.

This study will further explore these two areas. It is hoped that the questions posed above may help to further understanding of the congruency of attitudes between teachers and groups of good and poor readers, the relationship of pupils' perceptions of themselves and reading achievement, and the relationship of teachers' perceptions of their students and reading achievement.

Limitations

No causal relationships can be inferred from the data obtained. The results of this study should be cautiously interpreted in the context of its rationale, the modifications of the behavior rating scale used, and the fourth, fifth, and sixth graders who comprised the sample for the study.

CHAPTER II

REVIEW OF THE LITERATURE

No studies bearing directly on the main problem, the congruency of teacher attitudes about students and the students' self-attitudes, could be located. However, there is an abundance of literature on these attitudes considered separately and their relationship to reading ability. The literature most relevant to this investigation can be conveniently arranged under three headings--personality and reading achievement, self-concept and reading achievement, and the teacher-student relationship as it affects reading achievement. The writer has chosen to limit this review to studies whose subjects were in grades one through nine. This limitation was necessary because of the tremendous number of studies, particularly in the area of personality and reading achievement.

Personality and Reading Achievement

The literature in this area is voluminous. Holmes (1961) reports that between 1953 and 1959 alone there were approximately 100 experimental studies done, nearly half of them unpublished doctoral dissertations. Three kinds of studies, relevant to the present problem, are those

focusing on successful readers, disabled or retarded readers, and contrasting groups such as good and poor readers or overachievers and underachievers.

The data on studies in the first two categories, including grade, N, nature of experimental population, reading criteria, and measures of personality, are presented in Table 1. Similar information for the studies in the third category, contrasting groups of good and poor readers, is presented in Table 2. Table 3 presents the abbreviations of the tests used in the first two tables, their full names as given by the investigators, and the frequency of use of each test in the studies cited.

Table 1 shows that only two studies dealing with successful readers are relevant. Keshian (1963), who used the California Test of Personality to have students rate themselves, found a broad range of personal adjustment ranging from average to excellent. Maney (1965) found that teachers rated superior readers as high on responsibility, attention span, cooperation, independence, and other characteristics contributing to academic success. Neither of these investigators found evidence of maladjustment in these groups of good readers.

In addition, Table 1 indicates that disabled or retarded readers have been studied by several investigators. In a comprehensive study of 399 pupils systematically

TABLE 1

BASIC INFORMATION FROM STUDIES OF SUCCESSFUL AND DISABLED READERS

Grade	Investigator	N	Sample	Reading test	Personality test
			Successful Readers		
2-6	Maney (1965)	145	Superior readers	Gates	Teacher Ratings (author made)
5	Keshian (1963)	72	Randomly selected from 362 reading at or above grade level	Not named	California Asp. of Pers.
			Disabled Readers		
1	Malmquist (1958)	399		Ach. Test and Teacher Ratings	Teacher Ratings (author made)
1-6	Spache (1957)	125	1 or 2 years below grade level	Not named	Rosenzweig
3-5[a]	Frost (1965)	40	2-year gap of mental & reading age	Not named	Cattell Scott Bristol
	Blanchard (1928)	5	Severely retarded readers	Not named	Observation

(continued)

TABLE 1 (continued)

Grade	Investigator	N	Sample	Reading test	Personality test
	Challman (1939)		Severely retarded readers	Not named	Observation
	Barber (1952)	23	Severely retarded readers	Not named	Rorschach Teacher Ratings Interviews

[a]Frost (1965) gives chronological ages of 8 to 11. Grade was inferred by the writer.

TABLE 2

BASIC INFORMATION FROM STUDIES OF CONTRASTING GROUPS OF READERS ARRANGED BY GRADE

Grade	Investigator	N	Sample	Reading test	Personality test
1 & 4	Holzinger (1968)	178	85 1st grade boys 93 4th grade boys	NDev. Teacher Ratings	California Balow
2-5	Cutts (1956)	24	12 matched pairs	Not named	Interviews
2-6	Jackson (1948)	600	300 good readers 300 poor readers	Metropolitan New Stanford	Teacher Ratings
3	McMurray (1963)	742	640 good readers 102 poor readers	Not named	Teacher Ratings
3-6	Karlsen (1955)	106	53 matched pairs	Not named	Rorschach Behav. R.S.
3-6[a]	Abrams (1956)	50	25 matched pairs Readers and non-readers--boys	Not named	Rorschach Brown PI Soc. Adj. Inv.
4	Vehar (1968)	86		Metropolitan	Cattell
4 & 5	Zimmerman & Allebrand (1965)	153	Matched pairs Good and poor readers	Not named	California TAT

(continued)

TABLE 2 (continued)

Grade	Investigator	N	Sample	Reading test	Personality test
4,5,6	Durr & Schmatz (1964)	81	Gifted over- and underachievers	California	California Jr. Inven. MHA
4,6,8	Hallock (1958)	96	Intelligence and personality groups	California	California
5	Chronister (1964)	167		Iowa	California Behav. Pr.
5	Shapiro (1967)	50	Matched--boys	Iowa	Jr. Maudsley
5	Tabarlet (1958)	74	45 poor readers 29 average readers	Not named	MHA
5	Velfort (1956)	100	50 matched pairs	Not named	Rorschach Behav. Inv.
6	Norman & Daley (1959)	83	41 inferior readers 42 superior readers	California	California
6	Wilson (1965)	198		California	California Behav. R.S.
7	Bouise (1955)	58	20 superior readers 30 inferior readers	Metropolitan	Detroit

(continued)

TABLE 2 (continued)

Grade	Investigator	N	Sample	Reading test	Personality test
7	Graznow (1954)	120	40 overachievers 40 normal achievers 40 underachievers	Not named	Teacher Ratings
8 & 9	Blackham (1955)	30	15 matched over- and under-achievers	California	Rorschach TAT MHA
9	Athey (1966)	290		Stanford	U.C. Inv.

[a]Abrams (1956) gives chronological ages of 8 to 12. Grade was inferred by the writer.

TABLE 3

ABBREVIATIONS, FULL NAMES, AND FREQUENCY OF USE FOR TESTS IN TABLES 1 AND 2 ARRANGED ALPHABETICALLY

Abbreviation	Full name (as given by investigator)	Frequency of use
	Reading Tests	
California	California Reading Test	3
Gates	Gates Basic Reading Test--Silent Diagnostic Reading Test	1
Iowa	Iowa Every-Pupil Test of Basic Skills--Silent Reading Test	2
Metropolitan	Metropolitan Reading Test	4
NDev.	New Developmental Reading Test	1
New Stanford	New Stanford Reading Test	2
Not named	No reading test or method of determining achievement given	13
Teacher Ratings	Teacher ratings of reading achievement	2
	Personality Measurements	
Asp. of Pers.	Aspects of Personality	1
Balow	Balow School Behavior Profile	1
Behav. Inv.	Behavior Inventory	1
Behav. Pr.	Behavior Preference Scale	1
Behav. R.S.	Behavior Rating Scale	2
Brown PI	Brown Personality Inventory	1
California	California Personality Test	8

(continued)

TABLE 3 (continued)

Abbreviation	Full name (as given by investigator)	Frequency of use
Detroit	Detroit Adjustment Inventory	1
Interviews	Interviews with subjects by investigators	2
Jr. Inven.	Junior Inventory	1
Jr. Maudsley	Junior Maudsley Personality Inventory	1
MHA	Mental Health Analysis	3
Observations	Observations of investigator	2
Cattell	Porter-Cattell Fourteen Factor Children's Personality Questionnaire	2
Rorschach	Rorschach Test	4
Rosenzweig	Rosenzweig Picture Frustration Study	1
Scott Bristol	Scott-Bristol Social Adjustment Inventory	1
Soc. Adj. Inv.	Social Adjustment Inventory	1
TAT	Thematic Apperception Test	2
Teacher Ratings	Teacher ratings on school records	3
Teacher Ratings (author made)	Teacher ratings on author-made questionnaires	2
U.C. Inv.	University of California Inventory designed by C. M. Tryon	1

selected from the first grades of all of the primary schools in Sweden, Malmquist (1958) found that lack of self-confidence and stability, as judged by teachers' ratings, were definitely associated with reading disabilities in this group.

Case study or clinical techniques were used by Blanchard (1928), Challman (1939), Barber (1952), Spache (1957), and Frost (1965) to study children with serious reading disabilities. All of these investigators report personality problems of varying natures and degrees in their subjects. Barber (1952) studied 23 retarded readers intensively to see whether a common personality pattern could be established and found that these children lagged in all areas of behavior and showed marked anxiety about themselves. Spache (1957) reports that five subtypes of personality, found on the Rosenzweig Picture Frustration Study, accounted for 60% of the 125 poor readers who took the test. These were aggressive or hostile, defensive, withdrawing, adjustive-seeking to be inoffensive, and peacemaking. These findings concur with those of Challman (1939) who listed nervousness, withdrawal, aggression, defeatism, and chronic worry as characteristic of the retarded readers whom he studied. Frost (1965) observed 40 retarded readers and described them as unintelligent, lacking in drive, and mildly introverted. Furthermore,

according to teacher ratings, 40% of this group were maladjusted, 40% were unsettled, and only 20% could be considered well adjusted.

The most serious limitation of the studies cited on successful or disabled readers is the lack of control groups, which leaves the validity of the findings open to question. Also, some of the investigators, particularly Blanchard (1928) and Challman (1939), used subjective methods such as observations and interviews as their only means of personality assessment. Nevertheless, the evidence of generally good personal adjustment in the successful groups and several varieties of personality disturbances in the disabled groups cannot be ignored.

Of 20 investigators who studied contrasting groups of readers, presented in Table 2, 16 found statistically significant differences on personality variables for good and poor readers. These studies will be reviewed in the remainder of this section. The studies are grouped by the kind of personality measure employed by the investigator. The California Test of Personality had the greatest frequency of usage; 7 of the 16 investigators used the instrument either singly or in combination with other tests.

Norman and Daley (1959) provide the most intensive analysis of this test. Their aim was to try to determine psychometric patterns of adjustment for 42 superior readers

and 41 inferior readers in grade six. Since the superior readers had a mean reading grade level of 8.1 compared to 3.9 for the inferior readers, there was a considerable difference, 4.2 grades, in reading ability as measured by the California Achievement Test. Although no differentiating patterns were found, differences in total adjustment were significant. Sixty-seven of 144 test items differentiated between the good and poor readers at the .05 level. Five "clusters" seemed to describe the inferior readers. These were rejection by others, poor family interaction, frustration-aggression by others, conflicts about other-dominance, and environmental deprivation.

Durr and Schmatz (1964) and Zimmerman and Allebrand (1965) reported significant differences on personal adjustment but not on social adjustment, also using the California Test of Personality. However, Holzinger (1968), who also used this test, found differences significant at the .01 level favoring good readers over average and average over poor. These differences were more pronounced in fourth grade than in first. Chronister (1964), using the California Test of Personality in combination with the Behavior Preference Scale, found low (.21 to .38) positive correlations between reading comprehension and various personality factors. Unlike the previously mentioned investigators, he used a population composed of all

reading levels rather than contrasting groups.

Hallock (1958) isolated eight factors on the California Test, related to reading achievement in the following order of significance--family relationships, self-reliance, antisocial tendencies, feeling of belonging, withdrawing tendencies, school relations, nervous symptoms, and feeling of personal worth. Wilson (1965), who studied the patterns of his subjects' eye movements as well as their reading achievement, concluded that emotional and personal adjustment was most apparent in relation to relative reading efficiency.

The second group of studies was concerned mainly with projective measures, either singly or in combination with other instruments. Blackham (1955) reported that poor readers manifest emotional instability, immaturity, and feelings of inadequacy on the Rorschach Test, the TAT, and the Mental Hygiene Analysis. Abrams (1956) corroborated these results, citing insecurity and instability as salient characteristics of the nonreaders in his study. Zimmerman and Allebrand (1965) used the first picture of the TAT as a measure of attitude towards achievement and reported that good readers have a grasp of the concept of motivation whereas poor readers have feelings of inadequacy and discouragement and ephemeral goals.

Velfort (1968) hypothesized that poor readers would

exhibit more neuroticism, less assertiveness, greater hostility, and more antisocial behavior than good readers. Three independent judges rated 50 matched pairs of good and poor readers on Finney's Palo Alto Aggressive Content Scale which categorizes Rorschach responses in terms of aggressive content and a similar author-designed scale for assertiveness. The first two hypotheses were confirmed at the .01 level of confidence; the second two were rejected.

A third group of investigators, Jackson (1948), Graznow (1954), and McMurray (1963), used teacher ratings as their only measures of adjustment. The first two used teachers' summaries found on cumulative school records. Jackson (1948) reports that whereas good readers had good and excellent personality ratings, retarded readers were rated as average at best, and adjectives such as nervous, restless, and reticent were frequently used to describe them. Graznow (1954) found that underachieving readers were not considered as well adjusted to school rules and procedures as normal or overachievers. McMurray (1963) designed his own checklist of 35 items for teachers and found the following personality traits significant for unsatisfactory readers at the .01 level of confidence--lacks energy, short attention span, difficulty assuming responsibility, daydreams, compares unfavorably with others, seldom relaxed.

A word of caution is necessary in interpreting the findings of these three investigators. When teacher ratings are used as the only measurement of personality characteristics of good and poor readers, the results may be confounded by the so-called "halo effect," i.e., the students' reading abilities may influence the teachers' assessments of their personalities. Therefore, although these findings may accurately reflect the teachers' perceptions of their students, they cannot be considered an index of the subjects' personal adjustment.

Finally, Bouise (1955), Tabarlet (1958), and Athey (1965), using the Detroit Adjustment Inventory, the Mental Health Analysis, and the University of California Inventory, respectively, all reported higher total adjustment scores for good readers than for poor readers. Bouise (1955) also reported more frequent and pronounced emotional disturbances among the retarded readers, and Tabarlet (1958) concluded that "poor mental health and reading retardation go together [p. 525]." Athey (1965) found that 70 items on the University of California Inventory differentiated significantly between good and poor readers. These yielded a mean correlation of .53 with reading comprehension. Autonomy and self-confidence were particularly crucial for reading achievement.

Of these 16 investigators reporting significant

results, Durr and Schmatz (1964) and Bouise (1955) studied contrasting groups within a limited population. All of the subjects studied by Durr and Schmatz (1964) were gifted children. Although the low achievers within this very bright group showed weaknesses of personal traits compared to the high achievers, their mean scores for personal and social adjustment were still higher than those which could be expected from a randomly selected population. On the other hand, the subjects studied by Bouise (1955) were retarded readers. The "superior" readers in this group of seventh-grade children were reading at 6.0 or better and their adjustment scores were high only in comparison to those of the poorer readers in this study.

The four investigations that reported no significant differences on the personality variables which were studied will now be considered. Karlsen (1955) used the Rorschach Test and, unlike the previously mentioned investigators who used this instrument, found that it did not differentiate significantly between good and poor readers.

Interview techniques were used by Cutts (1956) on 12 matched pairs of good and poor readers selected from 280 children in grades two to five. He reported no differences in total, personal, or social adjustment. Although the good readers did exhibit more independence and leadership qualities, they had concomitant undesirable traits

such as hypertension and perfectionism. The small N in this study and the use of interviews, a less objective method of obtaining measurements of personal traits than those used by other investigators, may account, in part, for the indefinite results.

Vehar (1968) formed two groups, introverted and extroverted, on the basis of results from the Cattell Fourteen Factor Children's Personality Questionnaire and found no differences in the reading abilities of these groups, as measured on the Metropolitan Achievement Test. Shapiro (1967), using matched groups of good and poor readers, reported no significant relationship between achievement and the personality factors of extroversion and neuroticism as defined by H. J. Eysenck.

The reader seeking discernible trends in such a review of the literature is immediately frustrated. As Sampson (1966) concluded, "The research literature is not only very varied in scope but it is also beset by semantic uncertainties [p. 189]."

Considering the many methodological variables, the wide range of results obtained from the previously mentioned investigations is not too surprising. Several of the studies have inadequate experimental designs. Those concerned with successful or disabled readers had no control groups. Several of those studying contrasting groups

matched their subjects on variables such as age, sex, intelligence, and socioeconomic status, a practice considered unsound by many experts in research design (Campbell & Stanley, 1963).

Differences in the instruments of measurement also make it difficult to compare the various studies. Reading achievement is defined by different criteria--several achievement tests and, in some cases, teachers' ratings used alone or in combination with a test. Many of the investigators did not name their criteria for reading. Methods of defining achievement vary even when comparable tests are used. Some define reading achievement in relation to their subjects' mental ages or intelligence; others use grade placement as a point of departure. Some consider those reading one year above or below grade level as superior or retarded, others use two years above or below as cutoff points, and still others use one standard deviation from the mean score.

Measurements for personality traits included clinical devices; paper-and-pencil tests; interviews with students, parents, and teachers; school records; and teacher questionnaires. A few investigators used author-made behavior rating devices which are difficult to judge. Some were searching for personality patterns, others for total adjustment differences, and still others for differences

on specific characteristics such as introversion or neuroticism.

In addition to these methodological variations, the literature does present semantic difficulties. It frequently seems as if no two investigators ever use the same words to define a personality trait. It is impossible to decide whether "anxiety" and "neuroticism," "withdrawal" and "introversion," or "maladjustment" and "instability" can be equated. Also, the investigators may have different standards for measuring significance. Many do not present exact correlations between the variables they are studying, and the reader is expected to accept a finding as "significant" on good faith.

After surveying the literature in this area, it seems possible only to conclude as Gates (1941) did that personal maladjustment and reading retardation are related but "there is no single personality pattern among pupils . . . characteristic of the reading failure [p. 78]."

Self-Concept and Reading Achievement

The self-concept can be defined as "the person as known to himself, particularly stable, important and typical aspects of himself as he perceives them [Gordon, 1958, p. 433]." Many also view the self-concept as a developmental phenomenon which includes in its final stages the ability to identify with others (Bodwin, 1959).

Self-concept is an important aspect of personality, and many of the investigators cited in the last section deal, in part, with the self-concepts of their subjects. Paper-and-pencil tests, such as the California Test of Personality, and interview techniques measure self-concept along with other variables, since the way an individual answers questions about himself depends on how he perceives himself. The studies reviewed in this section, however, are concerned exclusively with self-concept.

Bodwin (1959) gave the Draw-a-Person Test to 200 third and sixth graders, 100 with reading disability and 100 normal readers, and found correlations of .72 and .68, significant at the .01 level, for these two grades between self-concept as measured on this test and reading achievement as measured on an achievement test. Using the California Personality Test, the test most frequently used to assess adjustment, as a measure of self-concept, Moffett (1963) found a correlation of .30 between this measurement and reading scores on the Iowa Every-Pupil Test of Basic Skills for 85 seventh-grade pupils.

Lumpkin (1961) used a matched group design to compare 25 overachievers and underachievers. After testing these children on a variety of psychological instruments, he concluded that the overachievers had significantly more positive self-concepts whereas the underachievers manifested

predominantly negative perceptions of self.

Lamy (1962) and Wattenburg and Clifford (1964) used data from kindergarten and the primary grades to determine whether poor self-concept might be a cause of reading disabilities. Lamy (1962) used interview and observation techniques to rate 52 children on 10 measures of self-perception in kindergarten. When these results were correlated with the children's first-grade reading achievement as measured by the California Reading Test and teacher ratings, their predictive power was as great as that of an intelligence test also given in kindergarten. The perception measures and intelligence test used as a combination yielded still greater prediction.

In a similarly longitudinal study, Wattenburg and Clifford (1964) attempted to correlate two aspects of self-concept, feelings of competence and sense of personal worth, tested in kindergarten and again in second grade, with reading achievement at the end of second grade. The measures of self-concept were tape-recorded comments of 128 children, made while drawing pictures of their families, and tape-recorded responses made to an incomplete sentence test. Two independent raters chose thought units from the recorded material related to feelings of competence and sense of personal worth and rated them as positive, negative, or neutral. The criterion for reading achievement

was whether the child was reading in a book above, below, or at grade level at the end of second grade. The investigators' conclusion was "as early as kindergarten self-concept phenomena are antecedent to and predictive of reading accomplishment [p. 467]."

Both of these longitudinal studies have methodological flaws; specifically, subjective measures of self-concept and, in the case of Wattenburg and Clifford (1964), a poor reading criterion and marginal statistical levels of confidence. It is also dangerous to infer causality from the predictive relationships which they report.

In general, those studying self-concept seem far more unanimous in their estimation of its relationship to reading achievement than those studying personality. Perhaps this is partly because it is more readily definable than vague and amorphous terms such as "adjustment" and "mental health."

The Teacher-Student Relationship and Reading Achievement

Most of the literature concerning teacher-student relationships is platitudinous, exhorting teachers to become experts in human relations and concluding that this will automatically enhance achievement in all areas. Very little substantive research has been done on the relationship of academic achievement to teacher-student relations

and practically none pertaining specifically to reading achievement.

Four studies concerned with reading achievement and different aspects of teacher behavior are those by Silberman (1957), Kasper (1956), Lewis et al. (1965), and Otto (1967). Silberman (1957) visited 49 classrooms of beginning teachers of grades three through six 12 times during the school year and categorized and tallied teacher and student verbal behavior during reading instruction. Pre- and posttests in reading achievement yielded no significant relationship of reading growth and the five variables measured--praise, reproof, praise by reproof, verbal output, and time devoted to reading skills. Kasper (1956) did case studies of 21 sixth-grade children. After observing them for a year, she concluded that good classroom climate improves emotional adjustment but is not related to reading achievement.

Lewis et al. (1965) hypothesized that those students perceiving a relationship with their teacher akin to an ideal therapeutic relationship will make greater academic gains than those perceiving a nontherapeutic relationship. The measure of this relationship was an author-made 25-item Teacher-Pupil Relationship Inventory which was filled out by 644 sixth graders and 845 ninth graders. The hypothesis was supported but sixth-grade subjects

perceiving a therapeutic relationship made greater gains in reading and other areas than ninth-grade students also perceiving this kind of relationship. The investigators concluded that this was because in sixth grade the students are with one teacher all day; hence, the relationship is more important at this level.

The study most relevant to the present problem was done, in a lighthearted manner, by Otto (1965). Groups of 75 good achievers and 75 poor achievers, all average or above in intelligence as measured by standard tests, were tested in an author-made 25-item scale dealing with achievement attitudes. No significant differences between these groups were obtained. Undaunted, Otto embarked on a hastily created second phase of the study, an "emergency design" as he referred to it, to see whether he could obtain any meaningful results. He decided to sample the thinking of classroom teachers by asking 40 teachers to respond to the scale twice--the first time as they would expect the good achievers to respond and the second time as they would expect the poor achievers to respond. This strategy is similar to that of Zohary (1955) who gave Johnson's Temperament Analysis to mothers of fast and slow readers, asking them to respond as if they were their daughters, after failing to find differences between the two groups of readers.

The second phase of Otto's (1965) study did yield results. Otto stated that "the salient generalization suggested by the data seems to be that the good achievers are less satisfied with themselves and their work than teachers expect and the poor achievers are more satisfied than expected [p. 333]." The lack of congruency was more pronounced for teachers and poor achievers than for teachers and good achievers.

Otto concluded:

> The one clear implication seems to be that we teachers need to examine some of our notions about the beliefs and attitudes of both good and poor achievers. What we think they think, what they think, and what they think we think may be poles apart. There is, indeed, an achievement dilemma, but we need to look more closely at who may be impaled on its horns [p. 333].

This is the primary goal of the present study.

CHAPTER III

METHODS AND PROCEDURES

Design of the Study

This study was modeled on a study done by Zohary (1955) in which mothers' attitudes towards their daughters were compared with the girls' attitudes about themselves for groups of fast and slow readers. In that study, the girls in both reading groups rated themselves on numerous personality traits on a scale and were in turn rated by their mothers on that same scale. In this way it was possible to measure the degree of congruency between the attitudes of the mothers and their daughters.

In order to answer the questions posed in the present study, it was first necessary to find a group of students for whom standard reading test scores were available. The next step was to give these students a behavior rating scale on which they could rate themselves on various personality traits and to give their teachers the same test to rate them on. Finally, by measuring the differences in the test results between the good readers' self-ratings and their teachers' ratings of them and the poor readers' self-ratings and their teachers' ratings of them, comparisons in

the degree of congruency between the groups could be made, both on the total test and on individual items. Comparisons between the good and poor readers' opinions about themselves and between the teachers' perceptions of the good readers and their perceptions of the poor readers could also be made from the available data.

Selection of the Sample

Since the procedure cited above required teacher time to rate the students as well as student time for administration of the behavior rating scale and the use of reading test scores which are considered confidential information, it was very difficult to find a school district willing to cooperate. Letters were sent to 15 districts in Essex, Union, and Morris Counties, and only one district, Madison Borough, replied in the affirmative. Even here compromises had to be made. Whereas the writer would have liked to use one grade of the entire district as the experimental population, the superintendent of schools requested that the study be limited to one school. Therefore, the fourth, fifth, and sixth grades of Kings Road School comprised the experimental population in this study.

The Borough of Madison covers four square miles of Morris County in northern New Jersey (League of Women Voters, 1968). Located 25 miles west of New York City, it

is a residential community from which many people commute to Newark and New York. Almost 18,000 people live in Madison. Most families own their own homes. The estimated 1970 median family income was $15,384 (Morris County Planning Board, 1970).

Madison Borough has a comprehensive K-12 school district (recent undated Board of Education leaflet). The median student IQ is 114. Two-thirds of the high school graduates from the borough enter college. Elementary school students are accommodated in five schools with enrollments ranging from 350 to 425. Kings Road School is located in an area zoned for one-family dwellings. According to the principal, most of the students come from prosperous families but a small number come from a considerably less affluent section close to Madison's business district.

The Reading Test

In February 1971 the students in the fourth, fifth, and sixth grades of Kings Road School took the Iowa Test of Basic Skills (1956) which yields a reading vocabulary score, a reading comprehension score, and a total reading score. The total score was used as the reading criterion. Good and poor readers were defined as those whose scores comprised the upper 27% and the lower 27% of the total group. The total number of students in grades four, five,

and six was 136. Therefore, the N for the upper 27% and the lower 27% was 37 each for a total N of 74.

Selection and Administration of the Personality Test

In order to determine the congruency between teachers' views of their students and the students' perceptions about themselves, it was necessary to find a test which met two requirements. First, it had to measure kinds of behavior or personality traits in students which could be readily observed by teachers as well as by the students themselves. Second, it had to be a scale that could be taken by the teacher for each of the students in the known reading groups by substituting the pronoun "he" for "you" in each of the questions.

The instrument chosen was the Child Personality Scale developed by S. M. Amatora (1951). To the author's knowledge, this test is not widely used. Although the manual states that "the vocabulary of the scale is adequate as low as third-grade level" and that "the graphic rating scale technique permits a greater degree of objectivity [p. 1]," no evidence on these points is available. Therefore, a pilot study was undertaken to determine the suitability of the test's vocabulary for fourth, fifth, and sixth graders and the effectiveness of the 10-point rating scale. This study took place in one fifth-grade classroom

at Collins School in Livingston, New Jersey, in February 1970. The test was administered to 29 fifth graders by their teachers. On the basis of the results and the teacher's comments, it was decided to make a few changes in the vocabulary of the test but to retain the 10-point rating scale which the students seemed to understand quite well. The test was further modified by omitting one question on church attendance and by changing the wording on a few questions so that the rating scale was worded consistently from least desirable traits (1) to most desirable traits (10).

The final version of the Child Personality Scale, now titled The Behavior Rating Scale at the request of the school authorities in Madison Borough, was administered by the investigator to the fourth-, fifth-, and sixth-grade classes at Kings Road School on three consecutive days during April 1971. There were two classes at each grade level and one class at a time was tested. Although it was only necessary to test those students whose reading scores fell in the upper or lower 27% of the group, it was decided to administer the test to all of the students in each class, both for administrative convenience and, hopefully, more natural results since no group was being singled out. The students were told only that this was part of a survey on school-related behaviors and that their answers would

be held in confidence. The 10-point scale was explained briefly. The questions were read aloud to the fourth-grade classes whereas the fifth and sixth grades took the test silently.

The teachers were not present during the administration of the test. They used this time to begin their own evaluations of their students. To lighten the teachers' loads, they were only asked to fill out tests for the students in the known reading groups. However, they were told only that this was a study in behavior; reading was not mentioned at any time.

Statistical Procedures

After the data had been collected, *Z* scores were calculated for the grade level reading test scores of the good and poor readers, and means and standard deviations of these scores for the two groups were obtained. A student *t* test was calculated to determine whether there was a significant difference in the reading test scores between the good and poor group. The results, shown in Table 4, indicate that there is, in fact, a significant difference between the scores of the two groups.

The primary area of concern in this study was teacher-student congruency and its relationship to reading achievement. In order to analyze the data, two approaches were taken. First, each student's answers to all of the

TABLE 4

MEANS AND STANDARD DEVIATIONS OF READING TEST Z SCORES AND T SCORE FOR GOOD AND POOR READING GROUPS IN GRADES FOUR THROUGH SIX

Group	N	Mean Z score	S.D.	T score (difference)
Good readers	37	1.208	0.299	
				-28.6088*
Poor readers	37	-1.263	0.432	

*Significant at the .0005 level.

questions on the rating scale were correlated with his teacher's ratings of him. The 37 correlation coefficients of each reading group were then compared. Second, the answers to the individual questions were studied for four different groups--the good readers' self-ratings, the teachers' ratings of the good readers, the poor readers' self-ratings, and the teachers' ratings of the poor readers. The differences in the degree of congruency between the teachers and the good readers and the teachers and the poor readers for the individual questions could then be considered. The secondary areas of concern, the differences between the good readers' self-ratings and the poor readers' self-ratings and the differences between the teachers' ratings of the good readers and their ratings of the poor readers, were also considered.

Analysis of Answers to All Questions on the Rating Scale by Individual Students and Their Teachers

In order to determine whether there was a difference in the degree of congruency between the teachers and the good readers and the teachers and the poor readers, Spearman correlation coefficients were computed for the answers of each student and his teacher to all 21 questions on the scale. When calculating these coefficients, any questions omitted or incorrectly answered by pupils or teachers were disregarded.

Tau was then computed for each Spearman correlation coefficient in order to test them for significance. Spearman correlation coefficients between students and teachers, tau values, and the significance of tau values at the .05 level are shown in Table 5 for the good readers and Table 6 for the poor readers. At the .05 level there were seven significant correlations between good readers and their teachers and 10 significant correlations between poor readers and their teachers. In the latter group, one of the significant correlations was negative, indicating that the student rated himself higher than his teacher rated him; in all of the other cases, the significant correlations were positive.

The Spearman correlation coefficients were then ranked from 1 to 74, based on their absolute values and a Mann-Whitney U Test was performed (Siegal, 1956). The rankings of the good readers were totaled and tested for significance. For a comparison of one group of 37 with another, the sum of the ranks must be less than 1.234 to be significant at the .0492 level. Since the actual sum was 1.458, the test for significance at this level was not satisfied.

TABLE 5

SPEARMAN CORRELATION COEFFICIENTS FOR GOOD READERS' SELF-RATINGS AND THEIR TEACHERS' RATINGS, AND TAU VALUES

Student number	Grade	Spearman correlation coefficient	Tau value
26	4	.738	4.773**
70	6	.591	3.191**
29	5	.500	2.519*
75	6	.483	2.407*
15	4	.433	2.095*
30	5	.403	1.917*
46	5	.399	1.845*
28	5	.367	1.629
44	5	.319	1.467
1	4	.309	1.416
18	4	.308	1.410
40	5	.296	1.350
56	6	.285	1.296
19	4	.284	1.291
76	6	.251	1.131
16	4	.236	1.000
72	6	-.214	-.931
77	6	.152	.670

(continued)

TABLE 5 (continued)

Student number	Grade	Spearman correlation coefficient	Tau value
65	6	.150	.663
4	4	.135	.593
55	6	-.133	-.584
54	6	.129	.567
45	5	-.126	-.553
78	6	.111	.487
69	6	.096	.422
17	4	.0796	.348
66	6	.071	.311
5	4	-.056	.247
39	5	-.048	-.212
42	5	.046	.205
52	6	-.033	-.140
27	5	.022	.094
3	4	-.0075	-.033
2	4	-.0029	-.013
47	5	.00013	.00055
53	6	.00013	.00055

*Significant at the .05 level.

**Significant at the .01 level.

TABLE 6

SPEARMAN CORRELATION COEFFICIENTS FOR POOR READERS' SELF-RATINGS AND THEIR TEACHERS' RATINGS, AND TAU VALUES

Student number	Grade	Spearman correlation coefficient	Tau value
14	4	.618	3.333**
13	4	-.542	-2.810**
38	5	.500	2.515*
20	4	.493	2.401*
22	4	.465	2.290*
67	6	.445	2.163*
37	5	.422	2.028*
73	6	.415	1.991*
21	4	.410	1.856*
57	6	.385	1.818*
21	5	.354	1.651
60	6	.341	1.580
68	6	.336	1.556
10	4	-.301	-1.375
36	5	.249	1.121
12	4	.243	1.090
11	4	-.205	-.912
23	4	.186	.826

(continued)

TABLE 6 (continued)

Student number	Grade	Spearman correlation coefficient	Tau value
80	6	-.186	-.826
8	4	.181	.803
62	6	.180	.796
71	6	.177	.765
79	6	.153	.677
9	4	-.143	-.632
59	6	.102	.446
34	5	-.099	-.433
6	4	.098	.431
35	5	-.092	-.402
7	4	-.805	-.373
50	5	-.076	-.332
33	5	.062	.271
24	4	.044	.195
64	6	.035	.151
63	6	.022	.095
74	6	-.019	-.081
41	5	.0053	.023
49	5	.0011	.005

*Significant at the .05 level.

**Significant at the .01 level.

Analysis of the Individual Questions by Known Groups

The answers to each question on the rating scale were divided into four groups: the good readers' self-ratings, the teachers' ratings of the good readers, the poor readers' self-ratings, and the teachers' ratings of the poor readers. Means and standard deviations were calculated for each of these groups. For this procedure, questions incorrectly answered or omitted by students or teachers were given the middle score of 5. Table 7 presents the means and standard deviations of the good readers' self-ratings and their teachers' ratings of them. Table 8 gives the same information for the poor readers' self-ratings and their teachers' ratings of them.

The data in Tables 7 and 8 were subjected to further analysis in view of the primary and secondary areas of concern in this study. First, the 21 test items were considered individually to see whether there was a greater degree of congruency between the teachers and the good readers than between the teachers and the poor readers on specific questions. Second, the answers to the individual questions were examined to see which ones differentiated between the good readers' and poor readers' self-perceptions and between the teachers' perceptions of the good readers and their perceptions of the poor readers. In order to attain these ends, student t tests were performed

TABLE 7

MEANS AND STANDARD DEVIATIONS FOR GOOD READERS' SELF-RATINGS AND TEACHER RATINGS ON THE BEHAVIOR RATING SCALE

Question number	Self-rating		Teacher rating	
	Mean	S.D.	Mean	S.D.
1	8.108	1.640	7.973	1.568
2	8.135	1.379	8.892	1.225
3	8.324	1.377	8.649	1.456
4	6.811	2.276	7.243	2.465
5	7.486	1.981	7.486	2.213
6	8.000	1.708	7.946	2.155
7	7.676	1.771	7.973	1.881
8	8.108	1.590	8.000	2.144
9	8.595	1.585	7.757	1.880
10	7.919	1.634	7.757	2.198
11	7.757	2.358	8.162	1.882
12	7.189	2.358	8.568	1.685
13	7.189	1.984	8.054	1.902
14	9.459	1.055	8.081	1.714
15	8.459	1.637	8.162	1.685
16	8.459	1.286	7.595	2.307
17	7.405	2.199	7.324	2.119
18	7.838	1.717	7.838	1.794
19	8.000	1.594	7.514	1.940
20	8.541	1.654	8.027	1.619
21	8.730	1.177	8.297	2.129

TABLE 8

MEANS AND STANDARD DEVIATIONS FOR POOR READERS' SELF-RATINGS AND TEACHER RATINGS ON THE BEHAVIOR RATING SCALE

Question number	Self-rating		Teacher rating	
	Mean	S.D.	Mean	S.D.
1	7.243	2.046	6.297	2.503
2	6.135	1.818	4.162	1.867
3	7.703	2.264	6.649	2.622
4	6.432	2.411	5.135	2.327
5	7.243	2.410	5.973	2.804
6	7.135	3.215	7.270	2.262
7	6.486	1.854	7.270	2.469
8	7.703	2.240	6.892	2.469
9	8.108	2.275	5.838	2.466
10	7.405	2.295	5.324	2.349
11	6.486	2.151	6.838	2.433
12	7.514	2.389	6.649	2.407
13	6.784	2.395	6.459	2.423
14	7.919	2.045	4.730	1.982
15	6.486	2.467	7.081	2.136
16	7.703	2.470	6.108	2.425
17	6.405	2.604	6.514	2.947
18	7.351	1.892	5.108	1.767
19	7.459	1.883	6.027	2.531
20	7.892	2.191	6.351	1.834
21	8.135	1.934	5.919	2.259

on four paired groups: (1) teachers vs. good readers, (2) teachers vs. poor readers, (3) good readers vs. poor readers--self-ratings, and (4) good readers vs. poor readers--teachers' ratings. The results are shown in Table 9.

In order to meet the requirement for significance at the .05 level, the T score for a comparison of two groups of 37 each for 72 degrees of freedom ($N_1 + N_2 = 37 + 37 - 2 = 72$ degrees of freedom) must be at least 1.6663 (Mood, 1963). In group 1, teachers vs. good readers, only six of the test questions showed a significant difference compared to 14 in group 2, teachers vs. poor readers. Four of these differences occurred in both groups. In all four cases the T score was greater for group 2. The larger values of the T scores in group 2 as well as the greater number in that group indicate that there is greater congruency in group 1, i.e., between the teachers and the good readers, than in group 2, i.e., between the teachers and the poor readers, on most questions.

In group 3, good readers vs. poor readers, self-ratings, seven of the test questions showed significant differences. In all of these cases the good readers' self-ratings are higher than those of the poor readers. Group 4, good readers vs. poor readers--teachers' ratings, has the largest number of significant T scores, 19.

TABLE 9

T SCORES FOR QUESTIONS ON RATING SCALE
FOR FOUR PAIRED GROUPS

Question number	Group 1 Teachers vs. good readers	Group 2 Teachers vs. poor readers	Group 3 Good readers vs. poor readers--self-ratings	Group 4 Good readers vs. poor readers--teachers' ratings
1	.3619	-1.7800*	2.0066*	3.4516**
2	2.4964**	-4.6054**	5.3315**	12.8846**
3	.9865	-1.8507*	1.4255	4.0563**
4	.7832	-2.3545*	.6953	3.7826**
5	0.0000	-2.0844*	.4738	2.5764**
6	.1195	.2089	1.4453	1.3162
7	.6993	.7998	2.8232**	2.1185*
8	.2461	-3.4052**	.8968	4.0245**
9	-2.0729*	-3.0606**	1.0684	2.6213**
10	.3598	-3.8545**	1.1098	4.6004**
11	1.1052	.6715	2.9276**	2.6722**
12	2.8943**	1.5515	.5889	3.9728**
13	1.9144*	.5803	.7921	3.1496**
14	-4.1647**	-6.8814**	4.0709**	7.7789**
15	.7690	1.1091	4.0435**	2.4292**
16	-1.9898*	-2.8029**	1.6514	2.7024**
17	.1613	.1686	1.7847*	1.3574

(continued)

TABLE 9 (continued)

Question number	Group 1	Group 2	Group 3	Group 4
	Teachers vs. good readers	Teachers vs. poor readers	Good readers vs. poor readers--self-ratings	Good readers vs. poor readers--teachers' ratings
18	0.0000	-5.2702**	1.1594	6.5947**
19	1.1774	-2.7612**	1.3339	2.8364**
20	1.3509	-3.2806*	1.4380	4.1673**
21	1.0827	-4.5327**	1.5986	4.6598**

*Significant at the .05 level.

**Significant at the .01 level.

In addition, the T scores themselves have the largest values in this group for most questions. These scores indicate that there is a great disparity between the teachers' perceptions of the good readers and their perceptions of the poor readers. It is also interesting to note the direction of the differences. In all 19 questions with significant scores, the teachers rate the good readers more favorably than they do the poor readers.

The results for groups 3 and 4 indicate that whereas there are differences between the good readers' self-ratings and those of the poor readers, they are neither so numerous nor so great as the differences between the teachers' ratings of the good readers and their ratings of the poor readers.

CHAPTER IV

FINDINGS

Analysis of Answers to All Questions on the Rating Scale by Individual Students and Their Teachers

This analysis did not yield significant results. When Spearman correlation coefficients for individual student-teacher pairs were calculated and tau values were computed to determine their significance, the number of correlations with tau values significant at the .05 level or higher was only 7 for the good reader-teacher pairs and 10 for the poor reader-teacher pairs as shown in Tables 5 and 6. These results are not much greater than those which can be expected to occur by chance. Furthermore, even where significance exists, the values of the correlation coefficients are not very high. The highest ones are .738 for the good reader-teacher pairs and .616 for the poor reader-teacher pairs, and in each group there are only three coefficients with values equal to or greater than .500. For these reasons, this part of the analysis of the data indicates little or no relationship between teacher-student congruency and reading achievement.

Analysis of Individual Questions

Definition of Congruency

In order to determine whether there was congruency between good reader-teacher groups and poor reader-teacher groups on specific questions, it was necessary to test for significant differences. *t* tests were performed and the *T* scores were tested for significance at the .05 level as shown in Table 9. For the purposes of this study, congruency on a given question is defined as the lack of a significant difference on its *t* test.

Teacher-Student Congruency and Its Relationship to Reading Achievement

When the test items were analyzed individually and difference scores were calculated for paired groups of good readers and teachers and poor readers and teachers, the results, shown in Table 9, did indicate far more congruency between the teachers and the good readers than between the teachers and the poor readers. Since six questions differentiate significantly between the teachers and the good readers, congruency exists on 15 questions. For the teachers and the poor readers, the situation is reversed. There are significant differences on 14 questions; congruency exists on only 7.

Of the six significant *T* scores for the teachers and the good readers, six were positive, indicating that

the teachers rated the students higher than the students rated themselves on these traits, and three were negative, indicating the opposite. The largest differences were on questions 2 and 14 concerned with intelligence and interests, respectively, and these will be discussed in a separate section. The other differences show no discernible pattern. Good readers rated themselves higher than their teachers rated them on sportsmanship (question 16) and sharing (9) whereas the teachers rated them higher than they rated themselves on cleanliness (12) and good nature (12).

All 14 significant T scores for the teachers and the poor readers were negative, indicating that the teachers rated the students less favorably than the students rated themselves on these items. Here again there were large differences on the questions concerned with intelligence (2) and interests (14) which will be discussed separately. Of the other significant differences, three are on traits which might be related to academic achievement. These are working in a group (8), perseverance (10), and dependability (21). There are several significant differences on questions concerned with social behavior such as friendliness (3), popularity (5), sharing (9), sportsmanship (16), interest as a person (18), thoughtfulness (19), and sense of humor (20). Finally, two of the significant

differences were on questions concerned with pep (1) and nervousness (3) which can be considered personal traits.

Five of the questions showed congruency for both the good reader-teacher groups and the poor reader-teacher groups. One of these was concerned with cheerfulness (15). The other four were concerned with personal habits --promptness (6), politeness (7), honesty (11), and deportment (17). As shown by the means for the student groups and the teacher groups presented in Tables 7 and 8, the good readers rated themselves higher than the poor readers rated themselves on all five of these questions and the teachers' ratings concurred. On three of these five questions, 7, 11, and 17, the differences between the good readers' self-ratings and those of the poor readers were great enough to show significance at the .05 level as shown in Table 9.

The questions on cleanliness (12) and temperament (13) showed congruency for the poor reader-teacher group but not for the good reader-teacher group. Both of these significant differences in the good reader-teacher group were caused by teacher ratings higher than the students' self-ratings. On both of these questions the teachers' ratings of the good readers are significantly higher than their ratings of the poor readers as shown in Table 9.

Good Readers' Self-Ratings and
Poor Readers' Self-Ratings

Table 9 also shows that there are seven T scores for the good reader-poor reader group which show significance at the .05 level. All of these are positive, indicating that the good readers' self-ratings are higher than those of the poor readers. The largest differences are found on intelligence (2) and interests (14). These will be discussed separately. Other traits on which the good readers rated themselves more favorably than did the poor readers include pep (1), politeness (7), honesty (11), happiness (15), and deportment (17).

Teachers' Perceptions of Good
and Poor Readers

This paired group has the largest and most numerous differences as shown in Table 9. Nineteen out of 21 questions differentiate significantly at the .05 level between the teachers' ratings of the good readers as a group and their ratings of the poor readers, and all of these differences are negative, indicating that the teachers perceive the good readers more favorably than the poor readers. The only two questions which do not show significant differences are those on promptness (6) and deportment (17).

Intelligence

As shown by Table 9, there were differences significant at the .05 level on the question concerned with intelligence (2) between all paired groups. The smallest difference is found between the teachers and the good readers. This difference is positive, indicating that the teachers regard the good readers as more intelligent than the good readers regard themselves. The difference between the teachers and the poor readers is negative, indicating that the teachers thought less of these students than the students did of themselves on this trait. The good readers rate themselves higher on intelligence than do the poor readers. The largest difference on this question is found on the teachers' ratings, with the good readers rated far more favorably than the poor readers. In fact, this is the largest T score on any question for any paired group.

The relationship between intelligence and reading achievement is well known. However, what is being measured here is not intelligence, but the students' perceptions of their intelligence and their teachers' perceptions of this trait. The differences in reading skills which account for the students' placements in good and poor reading groups may influence the teachers' perceptions of their intelligence. Since no objective date on this trait is available,

the actual differences in intelligence between the groups, if any, cannot be determined.

Interests

The question on interests (14) also showed significant differences for all four paired groups as shown in Table 9. Neither the good nor the poor readers showed congruency with their teachers for this item, and in both cases the teachers rated the students lower than the students rated themselves, though the difference is larger for the poor readers than for the good readers. The good readers rated themselves as having more interests than the poor readers. Here, again, the teachers' ratings show the largest difference, with the good readers being rated as having more interests than the poor readers.

CHAPTER V

DISCUSSION

The findings cited above show that congruency exists on far more questions for the teachers and the good readers than for the teachers and the poor readers. Teacher-student congruency, then, does seem to be related to reading achievement. On the basis of the available data, no conclusions can be drawn concerning the causes of this relationship. However, it is interesting to speculate on its nature.

Since reading is the basis of all school subjects, it seems reasonable to assume that the good readers would be more successful academically than the poor readers. Perhaps this success leads to more rapport with their teachers and this rapport results in the congruency cited above. Conversely, it may be this rapport with their teachers which leads to greater academic achievement. This point of view is supported by Lewis, Lovell, and Jessee (1965) who found that sixth graders who perceived a supportive relationship with their teachers made greater gains in reading and in other areas than those who did not. It should be pointed out that the reading scores

obtained by the good readers on the Iowa Test of Basic Skills are the result of several years of reading achievement under several teachers. Perhaps the good readers have been high achievers all along and thus have had consistently better rapport with their teachers. A cyclical pattern may be established whereby this rapport further stimulates academic achievement.

If the good readers are successful academically because of their reading skills, the poor readers, who lack these skills, probably have difficulties in most academic areas. The lack of congruency between the teachers and the poor readers may be indicative of a poor relationship. The poor readers' deficiencies in academic areas may fail to produce rapport with their teachers, and, in turn, since rapport is lacking, there may be little stimulus for academic gains.

It was stated earlier that the teachers view the poor readers more negatively than the poor readers view themselves. On those questions for which congruency does exist, the poor readers have lower opinions of themselves than do the good readers, and the teachers concur in this judgment. Since there are no objective measures of the traits under consideration, it cannot be determined whether the teachers' ratings or the students' ratings are more accurate. Perhaps the poor readers are unrealistic about

themselves. Perhaps the teachers' ratings of the poor readers are influenced by their lack of academic skills. Whatever the reasons, this lack of congruency may be indicative of a lack of communication between the teachers and the poor readers.

The differences between the good readers' self-perceptions and those of the poor readers are not as great as might be expected from the literature reviewed in Chapter II which presents many studies which found large differences in personality traits between good and poor readers. However, the instrument used in this study was a rating scale which measures only the student's opinion of himself, not actual adjustment. The fact that the differences between these groups are mainly on personal traits such as pep (1), intelligence (2), and happiness (15) seems to support the results reported by Durr and Schmatz (1964) and by Zimmerman and Allebrand (1965). Both of these investigations reported differences between good and poor readers on personal adjustment but not social adjustment based on the results of the California Test of Personality which was administered to the reading groups.

Perhaps the most salient finding of this study is the size and number of the significant differences between teachers' ratings of the good readers and their ratings of the poor readers. The teachers perceive the good readers

far more favorably than the poor readers on nearly all traits. The interrelationships of these perceptions, the teachers' relationships with their students, and reading achievement are not the concern of this study. However, this area is worthy of exploration in order to understand better the role of the teacher-student relationship in reading achievement.

CHAPTER VI

CONCLUSION

The analysis of the individual questions on the rating scale indicates greater congruency between teachers and good readers than between teachers and poor readers. Teachers and good readers show congruency on over twice as many questions as the teachers and the poor readers. In all cases the differences significant at the .05 level between the teachers and the poor readers indicated that the teachers thought less of the poor readers than those students thought of themselves.

There were some differences in the self-perceptions of the good and poor readers, and in all of these cases the good readers rated themselves higher. However, these differences were neither so great nor so numerous as those between the teachers' ratings of the good and poor readers. The teachers rated the good readers more favorably than the poor readers on all questions and the differences were significant on 19 out of 21 questions.

No conclusions can be drawn about the causes of these relationships, and these findings cannot be generalized to any other population.

CHAPTER VII

SUMMARY

This study attempted to explore the area of student-teacher congruency and its relationship to reading achievement in grades four through six. The differences between good readers' self-perceptions and poor readers' self-perceptions and between teachers' perceptions of good and poor readers were also considered.

One hundred and thirty-eight students in the fourth, fifth, and sixth grades took the Iowa Test of Basic Skills (1956). On the basis of the total reading score of this test, good and poor reading groups were defined as the upper and lower 27% of the group tested. These students rated themselves from 1 to 10 on 21 traits on a rating scale administered by the investigator. Their teachers were given the same scale to rate them on.

Various statistical analyses were performed; first, on the rating scales of the individual students and their teachers and, second, on the individual questions on the scale for four groups--the good readers' self-ratings, the teachers' ratings of the good readers, the poor readers' self-ratings, and the teachers' ratings of the poor readers.

The first analysis yielded no significant results. Comparisons of the answers to individual questions obtained by comparing the groups to each other indicated that the good readers were more congruent with their teachers than the poor readers, and that the good readers' and poor readers' self-perceptions did not differ nearly as widely as their teachers' perceptions of them.

No causal relationships can be inferred from these data and the results should be conservatively interpreted.

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APPENDIX A

RAW DATA

TABLE A1

STUDENT NUMBERS, GRADE LEVEL, SEX, READING GRADE LEVEL SCORE, AND Z SCORE FOR GOOD READERS

Student number	Grade level	Sex	Reading level	Z score
1	4	M	6.1	1.242
2	4	F	5.8	0.978
3	4	M	6.3	1.418
4	4	F	6.5	1.593
5	4	F	5.6	0.802
15	4	F	6.2	1.330
16	4	F	6.2	1.330
17	4	M	6.1	1.242
18	4	M	6.0	1.154
19	4	F	6.0	1.154
26	4	M	6.7	1.769
27	5	F	7.2	1.095
28	5	F	7.5	1.325
29	5	M	7.2	1.095
30	5	M	7.0	0.941
39	5	M	7.9	1.632
40	5	F	7.3	1.171
42	5	M	6.9	0.864
43	5	M	7.1	1.012
44	5	M	7.5	1.325
45	5	M	8.0	1.709
46	5	F	7.9	1.632
47	5	F	7.9	1.632
52	6	M	8.9	1.078
53	6	F	10.1	1.708
54	6	M	8.3	0.763
55	6	F	8.6	0.920
56	6	F	8.5	0.868
65	6	M	9.2	1.235
66	6	M	9.6	1.445
69	6	F	9.4	1.340
70	6	F	9.8	1.550
72	6	F	8.7	0.973
75	6	F	8.3	0.763
76	6	M	8.3	0.763
77	6	M	8.5	0.868
78	6	M	8.7	0.973

TABLE A2

STUDENT NUMBERS, GRADE LEVEL, SEX, READING GRADE LEVEL SCORE, AND Z SCORE FOR POOR READERS

Student number	Grade level	Sex	Reading level	Z score
6	4	M	3.8	-0.779
7	4	F	3.6	-0.954
8	4	M	3.9	-0.691
9	4	M	3.4	-1.130
10	4	M	3.4	-1.130
11	4	M	3.3	-1.218
12	4	F	3.2	-1.306
13	4	M	2.5	-1.921
14	4	F	2.9	-1.569
20	4	M	3.4	-1.130
21	4	F	3.4	-1.130
22	4	M	3.3	-1.218
23	4	F	2.2	-2.184
24	4	F	3.6	-0.954
31	5	M	4.9	-0.642
33	5	F	4.7	-0.826
34	5	M	4.6	-0.902
35	5	M	4.2	-1.210
36	5	M	3.9	-1.440
37	5	F	3.7	-1.593
38	5	M	3.3	-1.901
41	5	F	3.0	-2.131
49	5	M	4.4	-1.056
50	5	F	3.9	-1.440
57	6	M	3.5	-1.757
59	6	M	5.6	-0.655
60	6	M	5.0	-0.970
62	6	F	4.4	-1.285
63	6	F	4.0	-1.495
64	6	M	3.8	-1.600
67	6	M	5.5	-0.707
68	6	F	3.4	-1.809
71	6	M	2.9	-2.072
73	6	M	5.0	-0.970
74	6	F	5.5	-0.707
79	6	M	5.0	-0.970
80	6	F	4.4	-1.285

TABLE A3

GOOD READERS' SELF-RATINGS ON RATING SCALE

Student number	Question number																				
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
1	10	9	10	10	10	9	9	9	10	9	10	9	10	7	10	9	9	9	10	10	8
2	10	10	8	10	8	6	9	10	10	9	7	10	9	10	10	8	10	9	10	10	8
3	9	8	8	9	8	8	9	9	10	10	8	9	7	10	9	9	6	9	9	10	9
4	8	9	10	4	10	8	9	9	10	10	9	10	8	10	10	9	8	10	10	10	10
5	8	9	10	9	8	9	8	10	10	8	8	9	9	10	9	9	9	8	9	9	10
15	10	8	6	5	10	8	3	10	7	9	5	4	5	9	9	7	5	9	5	8	7
16	7	8	9	6	6	5	8	9	7	5	5	9	7	10	10	5	6	5	XX	XX	7
17	8	10	9	5	8	7	4	6	6	7	8	4	9	8	9	10	6	10	8	10	9
18	5	7	9	4	7	8	7	6	5	10	4	5	5	10	3	9	1	3	7	9	10
19	8	7	10	8	7	6	9	9	9	10	6	8	7	5	9	10	10	10	9	8	10
26	10	9	8	8	8	5	6	9	10	7	9	5	10	10	8	9	4	8	7	9	10
27	8	6	5	3	5	9	8	7	9	4	5	4	5	9	6	8	9	8	8	9	9
28	7	8	6	4	3	10	XX	XX	6	8	6	9	5	10	6	9	5	8	9	6	9
29	7	9	6	7	5	8	5	6	4	6	8	6	5	9	5	5	8	7	5	7	8
30	5	6	8	7	8	10	9	8	9	8	6	9	8	9	8	10	9	4	7	4	8
39	10	9	8	10	10	9	9	8	10	8	10	9	8	8	9	9	10	10	9	8	10
40	10	9	9	9	10	9	9	8	8	9	8	8	9	10	10	10	10	9	8	9	8
42	7	5	8	7	9	8	8	5	6	6	9	2	5	10	6	8	7	5	6	9	7
43	4	6	9	2	4	9	5	9	8	10	8	5	2	10	6	9	5	8	7	5	9
44	10	8	10	10	10	8	9	10	10	9	9	6	10	10	10	8	9	9	9	10	9
45	9	8	7	7	9	10	8	7	9	8	7	8	6	10	9	9	7	6	7	10	9
46	8	6	7	3	5	2	5	5	9	8	8	1	6	8	8	7	8	8	5	8	7
47	8	9	8	7	9	10	6	10	10	9	9	8	7	10	10	10	7	10	7	10	9
52	9	10	9	7	10	8	10	XX	9	9	10	8	9	10	10	8	10	8	8	10	10

(continued)

TABLE A3 (continued)

Student number	Question number																				
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
53	6	9	9	5	9	9	8	8	8	7	8	8	5	10	9	8	9	8	9	10	7
54	5	9	9	4	5	7	8	8	10	7	8	5	5	10	9	8	6	5	6	5	8
55	9	8	8	9	6	9	10	10	10	8	8	9	9	10	9	10	5	8	10	9	10
56	8	6	9	6	7	8	7	7	10	6	8	5	7	10	10	9	6	7	9	8	5
65	6	8	5	7	5	9	7	8	9	7	8	9	6	9	7	9	9	6	6	8	8
66	9	9	9	9	5	9	9	7	9	8	8	8	9	10	9	8	9	9	9	9	9
69	9	9	10	8	9	7	9	10	10	9	8	10	9	10	8	9	9	9	10	10	9
70	8	9	9	4	7	5	5	8	7	3	5	5	4	10	8	8	3	7	8	7	9
72	10	8	9	10	8	7	9	9	9	9	10	7	9	9	10	XX	8	9	10	9	10
75	7	9	7	8	5	9	9	8	8	7	8	9	6	10	8	9	10	8	9	10	10
76	10	9	8	5	7	9	9	9	8	8	8	10	8	10	8	8	9	7	9	9	9
77	9	5	10	7	7	9	8	10	10	9	9	6	8	10	9	9	5	8	7	9	9
78	9	10	9	9	10	10	9	9	9	9	9	10	10	10	10	9	8	9	10	10	10

XX = Question incorrectly answered or omitted.

TABLE A4

TEACHERS' RATINGS OF GOOD READERS ON RATING SCALE

Student number	Question number																				
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
1	7	7	6	7	7	4	4	4	3	3	6	7	5	5	7	7	3	5	3	8	4
2	8	10	9	8	9	8	8	10	8	10	5	8	8	10	8	4	5	9	5	7	10
3	10	10	10	8	9	8	4	10	7	8	7	7	8	8	7	2	5	8	7	10	9
4	8	10	10	10	10	10	10	10	10	10	10	10	10	9	9	10	9	10	10	10	10
5	8	10	9	9	8	9	10	10	8	9	8	10	8	7	8	10	8	9	8	7	10
15	10	10	10	7	8	9	7	9	7	9	8	9	9	9	9	8	5	8	6	8	9
16	5	9	9	5	5	4	8	9	9	9	9	9	9	5	7	7	8	5	8	6	10
17	8	9	9	8	9	9	7	9	8	8	8	9	8	8	8	8	8	8	8	8	9
18	7	9	7	7	5	6	7	5	5	5	6	6	7	8	8	8	5	7	7	8	10
19	7	7	8	7	7	5	8	8	8	8	7	7	8	6	7	7	5	5	7	7	8
26	9	10	10	9	10	6	5	10	10	8	8	5	10	10	9	10	5	10	6	10	10
27	9	9	9	6	9	9	9	9	9	9	9	7	9	8	10	9	6	9	8	9	9
28	6	9	7	2	5	7	8	6	7	7	9	9	5	6	6	6	7	8	8	9	8
29	9	10	9	9	9	9	9	9	9	9	9	9	8	9	8	5	9	8	5	7	10
30	5	5	3	2	1	9	10	2	3	1	2	10	6	3	2	2	9	2	2	2	2
39	10	10	10	10	7	10	10	10	7	5	10	10	10	8	10	8	8	8	10	8	10
40	10	10	10	10	10	10	10	5	5	10	10	10	5	10	10	5	10	10	5	10	10
42	5	7	10	1	3	1	3	5	5	2	5	2	8	10	5	3	1	5	5	8	1
43	10	8	10	2	8	10	5	10	10	8	10	10	10	10	10	5	5	10	10	10	5
44	10	8	10	10	10	10	10	10	10	10	10	10	10	10	10	10	8	10	10	10	10
45	7	10	10	10	7	10	10	7	7	7	10	10	10	10	10	10	10	10	8	10	8
46	7	10	7	3	7	3	7	7	7	10	XX	7	2	7	7	10	10	8	8	8	8
47	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
52	9	9	9	8	8	9	9	9	8	8	10	10	10	9	10	10	7	8	8	8	8

(continued)

TABLE A4 (continued)

Student number	Question number																				
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
53	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
54	9	7	8	7	4	8	9	9	9	10	10	9	9	8	9	9	9	8	9	8	8
55	9	9	9	9	8	10	10	10	10	8	10	10	9	9	9	8	8	8	8	8	9
56	9	8	9	8	9	8	9	9	9	7	9	10	10	9	10	10	6	8	9	8	9
65	7	8	7	5	5	7	7	5	5	7	8	8	5	7	8	5	8	6	8	6	9
66	6	9	8	8	8	8	6	6	7	7	7	9	7	8	7	7	7	7	7	7	7
69	6	10	8	8	8	8	8	9	9	8	9	9	9	5	7	9	9	7	9	7	8
70	9	10	9	8	9	8	8	9	9	9	9	9	9	9	9	9	6	9	9	9	9
72	8	8	8	8	7	8	8	8	8	6	7	8	8	7	7	7	8	7	7	7	8
75	6	9	8	8	7	9	9	7	8	9	9	9	9	9	7	9	10	7	9	7	9
76	7	9	7	6	3	7	7	4	6	8	8	8	6	8	8	8	9	7	5	6	7
77	7	7	9	7	9	9	8	8	8	6	6	8	8	8	7	8	7	7	8	7	7
78	8	9	9	8	9	9	8	9	9	9	9	9	6	7	9	8	8	9	8	9	9

XX = Question incorrectly answered or omitted.

TABLE A5

POOR READERS' SELF-RATINGS ON RATING SCALE

Student number	Question number																				
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
6	8	6	9	7	10	8	6	10	9	10	9	10	6	8	10	8	7	9	8	9	10
7	9	7	10	5	2	9	8	9	8	9	6	5	8	9	5	5	9	5	9	5	9
8	8	8	6	8	9	9	8	10	9	7	8	5	8	10	7	10	2	8	9	10	8
9	5	7	6	8	7	4	6	7	7	8	9	8	5	10	7	5	6	7	8	6	9
10	6	7	9	8	9	6	6	9	10	9	6	7	9	9	8	10	9	9	10	9	10
11	9	10	10	9	10	10	8	9	9	10	8	10	10	9	10	10	9	10	10	10	10
12	8	9	8	5	7	6	9	9	5	8	5	8	4	8	3	10	10	8	9	10	10
13	6	7	8	9	8	7	6	8	8	10	8	10	8	10	7	10	8	9	8	7	9
14	5	2	5	1	4	1	5	4	5	6	5	4	5	XX	6	6	6	5	5	4	4
20	8	9	2	7	8	10	1	4	1	5	1	1	XX	4	2	1	1	8	2	5	3
21	5	3	9	6	10	1	5	5	8	10	10	9	10	5	7	10	10	XX	9	10	XX
22	9	8	10	10	7	8	5	9	10	7	5	5	1	6	5	9	6	7	5	6	9
23	1	4	10	3	7	10	6	10	8	5	10	10	8	10	6	5	9	6	9	10	9
24	9	8	6	5	10	9	3	10	8	7	6	4	5	5	1	7	4	9	6	8	8
31	9	5	7	8	10	10	7	8	9	5	7	8	8	7	9	8	7	9	7	8	9
33	8	7	5	8	10	10	7	9	10	5	5	9	4	5	8	10	10	9	8	7	10
34	5	3	2	5	6	10	5	4	2	4	2	5	5	9	3	2	5	3	5	2	6
35	5	5	7	4	6	5	4	6	4	8	4	8	4	9	5	5	5	5	6	6	9
36	8	5	8	6	8	10	10	8	9	8	9	10	8	7	5	8	9	5	8	9	7
37	8	4	10	9	10	10	8	9	10	9	9	8	9	9	10	10	7	8	10	7	7
38	9	6	8	5	7	10	7	9	10	8	6	4	7	8	6	9	7	8	7	10	10
41	6	8	5	8	7	1	6	9	10	10	5	8	6	7	9	6	7	7	6	7	10
49	6	7	9	8	5	9	8	8	9	10	9	10	5	6	8	10	8	10	5	9	9
50	6	7	10	5	4	1	6	10	8	10	5	10	10	6	6	10	6	6	7	4	10

(continued)

TABLE A5 (continued)

Student number	Question number																				
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
57	10	7	8	1	10	1	7	2	5	1	5	8	7	10	2	10	1	10	5	10	5
59	8	4	8	6	9	9	5	7	9	8	6	7	4	9	8	9	8	8	8	8	8
60	10	4	10	10	8	5	5	5	10	5	5	7	10	7	10	5	5	5	5	5	10
62	8	7	9	10	7	10	9	10	10	10	8	10	8	9	9	8	9	9	9	10	9
63	7	5	10	8	7	10	8	9	10	8	7	9	8	10	6	8	7	8	9	10	9
64	5	5	8	3	1	7	6	10	10	5	7	9	5	10	5	8	1	5	10	10	5
67	8	5	10	4	4	1	4	10	10	10	4	3	10	3	9	8	3	10	6	10	8
68	10	7	8	6	5	10	8	7	9	7	6	9	7	10	4	10	8	6	8	9	8
71	4	5	3	3	3	7	6	4	7	5	4	4	3	XX	4	3	5	5	6	5	6
73	7	6	5	8	8	6	7	5	9	3	8	9	3	10	6	5	2	8	7	10	5
74	10	8	9	7	9	10	10	8	10	10	9	10	10	10	9	9	6	8	9	9	9
79	5	5	8	5	6	5	8	5	6	6	5	8	8	9	5	8	6	5	8	8	9
80	10	7	10	10	10	9	7	10	9	8	9	9	10	10	10	10	9	10	10	10	10

XX = Question incorrectly answered or omitted.

TABLE A6

TEACHERS' RATINGS OF POOR READERS ON RATING SCALE

Student number	Question number																				
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
6	10	6	7	8	8	6	7	7	7	6	7	7	6	3	7	7	6	5	7	8	5
7	5	3	3	4	3	10	10	5	5	3	7	9	7	3	7	6	10	4	5	6	5
8	6	8	6	6	3	9	4	5	2	4	5	8	6	8	5	7	1	5	2	7	6
9	8	3	9	1	9	7	4	6	6	8	5	2	1	4	8	3	3	5	5	10	5
10	3	2	3	5	3	9	6	2	3	1	2	8	5	1	4	6	10	2	2	4	1
11	10	6	10	8	8	10	10	9	9	10	10	8	9	6	10	9	7	5	6	8	7
12	5	4	4	5	4	8	10	7	8	5	8	5	8	3	7	8	10	5	10	7	9
13	8	5	10	6	6	10	8	8	7	6	5	5	5	4	8	6	6	5	5	8	7
14	3	5	5	1	10	2	10	2	5	9	10	2	6	2	6	10	10	5	10	6	5
20	8	8	5	6	7	5	3	8	5	5	5	7	3	4	5	4	3	5	3	4	5
21	3	3	3	3	3	5	6	2	2	4	5	4	6	3	4	5	9	5	5	5	5
22	7	7	9	5	9	7	2	6	5	3	2	5	2	7	5	2	2	4	3	5	4
23	3	2	3	7	4	6	5	4	4	3	5	7	7	3	5	5	8	4	5	5	4
24	9	3	6	5	7	9	5	5	5	7	4	8	5	4	8	5	6	5	5	6	4
31	9	5	10	6	10	9	9	9	9	7	9	9	10	7	10	10	8	7	8	9	7
33	5	5	3	9	8	6	8	6	6	7	9	9	9	6	8	8	9	5	9	5	7
34	2	3	3	9	2	5	5	3	9	3	3	2	6	3	3	4	9	2	3	3	2
35	2	3	2	2	1	3	10	2	3	2	8	9	5	2	2	4	9	2	3	3	3
36	9	5	9	9	9	9	9	8	9	5	9	9	10	5	10	10	8	5	9	7	5
37	9	2	10	2	8	9	5	3	9	6	8	8	2	3	9	3	2	5	5	7	5
38	2	8	9	4	10	10	9	9	9	9	9	8	8	8	8	9	7	9	9	10	9
41	7	1	10	5	10	10	10	10	10	10	10	10	10	5	10	10	10	5	10	10	10
49	5	1	10	3	5	10	10	5	10	5	10	5	10	5	5	5	10	5	10	5	10
50	10	4	10	5	5	10	10	10	10	5	5	3	3	6	10	5	5	5	10	5	8

(continued)

TABLE A6 (continued)

Student number	Question number																				
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
57	10	3	9	1	3	5	4	5	5	2	8	6	7	7	9	2	1	6	5	7	5
59	8	3	5	1	1	3	2	2	2	2	3	3	4	4	7	5	2	3	3	4	2
60	6	3	4	5	3	4	4	4	5	2	5	5	6	6	7	7	4	5	4	5	3
62	8	6	9	8	8	9	9	10	10	8	10	10	10	9	9	9	9	9	9	8	9
63	7	3	5	5	6	7	7	8	8	6	10	10	10	8	10	9	8	8	9	8	8
64	7	2	5	6	3	5	5	4	4	3	5	4	4	4	8	5	3	4	3	4	4
67	7	5	9	6	7	6	6	6	8	4	8	5	6	4	8	6	5	8	6	8	6
68	6	5	5	4	4	9	8	4	4	6	7	10	6	6	4	2	8	5	5	6	8
71	2	2	8	3	2	7	8	4	6	8	8	6	8	1	5	7	10	1	6	6	9
73	7	6	7	6	7	7	5	6	8	6	8	8	6	6	8	2	2	6	4	7	7
74	6	5	6	9	9	9	9	9	8	6	8	9	8	6	8	7	8	7	8	7	8
79	4	4	8	6	8	6	6	6	6	4	6	6	8	4	8	8	6	6	6	6	6
80	7	5	7	6	8	8	7	7	7	7	7	7	7	5	7	6	7	7	6	6	6

APPENDIX B

RATING SCALES

RATING SCALE

Name_____ Grade_____

1. Are you peppy and full of life?
   get tired easily ..... peppy

2. How bright or intelligent are you?
   not bright ..... very bright

3. How friendly and sociable are you?
   most unfriendly ..... very friendly

4. Are you restless or nervous?
   get upset easily ..... very calm

5. Are you popular with the other children?
   avoided, not liked ..... very popular

6. Are you usually on time?
   usually late ..... never late

7. How polite are you?
   very impolite ..... always polite

8. How well do you work with others?
   never join in ..... always help the group

9. Do you share with others?
   keep all for yourself ..... share with others

10. How well do you stick to a task?
    give up easily ..... always keep trying

1	2	3	4	5	6	7	8	9	10

11. How honest are you?
very dishonest ..... extremely honest

12. Are you neat and clean?
very dirty, not neat ..... very neat and clean

13. Are you easily angered or good-natured?
get angry easily ..... very good-natured

14. Are you interested in few or many things?
few things ..... many things

15. Are you usually sad and gloomy, or happy?
sad, gloomy ..... always cheerful and happy

16. Are you a poor sport or a good one?
can't stand losing ..... very good sport

17. Are you usually loud and rude, or quiet?
noisy, must be heard ..... very quiet

18. Are you boring or entertaining?
very boring ..... very entertaining

19. Are you kind and thoughtful of others?
very unkind ..... very kind and considerate

20. Have you a sense of humor?
no sense of humor ..... good sense of humor

21. Can you be counted on to do something?
never ..... always dependable

1	2	3	4	5	6	7	8	9	10

BEHAVIOR RATING SCALE

Name_____ Grade_____

1. Is he peppy and full of life?
   gets tired easily ..... peppy

2. How bright or intelligent is he?
   not bright ..... very bright

3. How friendly and sociable is he?
   most unfriendly ..... very friendly

4. Is he restless or nervous?
   gets upset easily ..... very calm

5. Is he popular with the other children?
   avoided, not liked ..... very popular

6. Is he usually on time?
   usually late ..... never late

7. How polite is he?
   very impolite ..... always polite

8. How well does he work with others?
   never joins in ..... always helps the group

9. Does he share with others?
   keeps all for himself ..... shares with others

10. How well does he stick to a task?
    gives up easily ..... always keeps trying

1	2	3	4	5	6	7	8	9	10

11. How honest is he?
very dishonest .... extremely honest

12. Is he neat and clean?
very dirty, not neat ..... very neat and clean

13. Is he easily angered or good-natured?
gets angry easily ..... very good-natured

14. Is he interested in few or many things?
few things ..... many things

15. Is he usually sad and gloomy, or happy?
sad, gloomy ..... always cheerful and happy

16. Is he a poor sport or a good one?
can't stand losing ..... very good sport

17. Is he usually loud and rude, or quiet?
noisy, must be heard ..... very quiet

18. Is he boring or entertaining?
very boring ..... very entertaining

19. Is he kind and thoughtful of others?
very unkind ..... very kind and considerate

20. Has he a sense of humor?
no sense of humor ..... good sense of humor

21. Can you count on him to do something?
never ..... always depend on him

1	2	3	4	5	6	7	8	9	10